

Appl. No. : 10/811,784
Filed : March 29, 2004

AMENDMENTS TO THE CLAIMS

Amendments to the claims are indicated in the following listing of claims, which replaces all prior listings of the claims.

1-10. (Canceled)

11. (Currently Amended) A suspension assembly for a bicycle, comprising:

a primary tube;

a piston rod supporting a piston and being capable of motion relative to said primary tube in a compression direction of said suspension assembly, said piston and said primary tube at least partially defining a first fluid chamber, wherein one of said primary tube and said piston rod is configured to be connected to a wheel portion of a bicycle and the other of said primary tube and said piston rod is configured to be connected to a frame portion of a bicycle;

a secondary tube at least partially defining a second fluid chamber, wherein said first fluid chamber and said second fluid chamber are filled with a liquid and wherein liquid flows from said first fluid chamber to said second fluid chamber in response to relative motion of said piston rod and said primary tube in said compression direction;

an inertial valve comprising an inertial mass, said inertial mass being within said secondary tube and not within said first fluid chamber, wherein said inertia mass does not surround said primary tube, said inertial mass configured to move axially relative to said secondary tube in generally a same direction as movement of said piston in response to a terrain-induced force tending to move said suspension assembly in said compression direction, said inertial valve having a first position and a second position, said inertial valve biased into said first position blocking a flow of liquid from said first fluid chamber to said second fluid chamber in said compression direction, said inertial valve permitting a flow of liquid from said first fluid chamber to said second fluid chamber in said second position in said compression direction; and

a floating piston within said secondary tube and separating a gas space of said secondary tube from a damping fluid space of said secondary tube.

12-14. (Canceled)

tube and said piston rod is configured to be connected to a wheel portion of a bicycle and the other of said first tube and said piston rod is configured to be connected to a frame portion of a bicycle;

a first fluid chamber and a second fluid chamber, wherein said first fluid chamber and said second fluid chamber are filled with oil and wherein oil flows from said first fluid chamber to said second fluid chamber in response to relative motion of said piston rod and said first tube in said compression direction;

an inertial valve comprising an inertial mass, said inertial mass being within said second tube and not within said first fluid chamber, wherein said inertia mass does not surround said first tube, said inertial mass configured to move axially relative to said second tube in generally a same direction as movement of said piston in response to a terrain-induced force tending to move said suspension assembly in said compression direction, said inertial valve having a first position and a second position, said inertial valve biased into said first position blocking a flow of oil from said first fluid chamber to said second fluid chamber in said first position in said compression direction, said inertial valve permitting a flow of oil from said first fluid chamber to said second fluid chamber in said second position in said compression direction; and

a floating piston within said second tube and separating a gas space of said second tube from a damping fluid space of said second tube.

17-19. (Canceled)